

The Western Feedlot Outbreak

Participant's Version

Note: This case study is based on a real-life outbreak investigation undertaken in a western state. Some aspects of the original outbreak and investigation have been altered, however, to assist in meeting the desired teaching objectives and allow completion of the case study in less than 2 hours.

Participants should be aware that this case study describes and promotes one particular approach to foreign animal disease/emerging disease incident (FAD/EDI) investigation. Procedures and policies in outbreak investigations, however, can vary from state to state and outbreak to outbreak.

It is anticipated that the Foreign Animal Disease Diagnostician (FADD) investigating a FAD/EDI will work within the framework of an "investigation team" which includes persons with expertise in epidemiology, microbiology, virology, pathology as well as local, state, and federal agencies with particular knowledge and capacity to assist in the response and resolution of the investigation. It is through the collaborative efforts of this team, with each member playing a critical role, that outbreak investigations are successfully completed.

You will be provided an initial scenario of this case study. Please form groups and consider your answers to the Questions listed below. More information will be provided during the Case Study presentation. Be certain to download a hard copy of the FAD/EDI Investigation Form to begin filling in the information as you receive it. The intended route of transmission of your completed FAD/EDI Report to me, the Disease Reporting Officer, is via the computerized FAD/EDI database. Usually, the Area Office will initiate this form. In this exercise, you will gain experience initiating and completing the FAD/EDI Reporting form.

Learning objectives:

After completing this case study, the participant should be able to:

1. Communicate information on an FAD/EDI investigation through the FAD/EDI investigation reporting format.
2. Describe what control measures should be taken in the event of a probable FAD/EDI .
3. Consider what personal safety measures are needed; what biosecurity measures need to be in place to prevent further spread of disease; what is the potential that this is a bioterrorism event; where information can be found to enhance surveillance for the disease; and what can be done to enhance risk communication.

IMPORTANT INSTRUCTIONS

How to generate your own Referral Control Number

Each FADD will create their own personal 11-digit alphanumeric "Referral Control Number."

First 2 digits for everyone will represent the year 2000: 00

Second 2 digits represent the state where you work: (two digit state code) i.e., Maryland = MD

Next 4 digits for everyone are: TEST

The last 3 digits will be the FADDs own initials: i.e., Sherrilyn H. Wainwright = SHW
(If you don't have a middle initial, use "X.")

So, my Referral Control Number will be: 00MDTESTSHW

SPECIFIC INSTRUCTIONS FOR FILLING OUT FAD/EDI INVESTIGATION REPORTING FORM FOR THIS EXERCISE

As you create a "new" FAD/EDI Investigation Form, you will see a pull down menu under "COMPLAINT." For this Exercise, under COMPLAINT, choose "PRACTICE TESTING" so our responses only show up for the PRACTICE Exercise and not in the actual listing of ongoing FAD/EDI Investigations.

PART I - The initial farm visit

You are a Foreign Animal Disease Diagnostician, FADD, and you are responsible for a 7 county section of a great Western State. It is June 6th and you have just received a phone call from the current Acting AVIC of your state. The Acting AVIC tells you that an accredited veterinarian in your section has reported some suspicious oral erosive lesions in some feedlot cattle. This is all the information that was available except for the name and phone number of the feedlot. The Accredited Veterinarian has just left the country on vacation with his family and will not be back for a month.

The feedlot's name, address and phone number were confirmed for you by the Area Office program records clerk.

Feedlot Name: Year's Best Feedlot
Feedlot Address: 2222 Excellent Rd., High Loss, Western State 10101
Feedlot Phone : 111-234-5678
Manager: Dana Caballo

This feedlot is located in the southwestern part of the state. You have not had a chance to visit this part of your section in a while because you have been Acting AVIC for the past 2 weeks and the 3 weeks just prior to that time, you were on a detail to a national Task Force in one of the northern states.

You've just been back a few days and are trying to catch up on your regular work load and this call has come in for immediate action. The Acting AVIC advises you that for this investigation you are to create your own personal referral control number as mentioned previously. You will enter this referral control number on the FAD/EDI Investigation Form that you will use to document your findings on this investigation. In order to be sure to enter the correct number you pull out your notepad and write it down, remembering that:

It is an 11-digit alphanumeric "Referral Control Number."

That the first 2 digits represent the year: 00;

the second 2 digits represent the two digit state code of the current state you work in;

the next 4 digits for everyone is: TEST;

and the last 3 digits are you own initials.

From previous work you have done in this area, you know that this is a 1500 head feedlot in an area of the state where other farms and ranches are also located. And a natural wildlife preserve is somewhere nearby.

Part I Questions:

1. What are some of the initial activities that are likely to ensue following these pieces of information?
2. What questions will be at the top of your list to ask the feedlot owner?

PART II

You arrive at the feedlot, having driven past the 6000 cow dairy farm you remembered was already built and had just started up about 2 months ago, just before your details began at the Task force and as Acting AVIC.

The feedlot is situated on a rectangular piece of property with pens full of cattle. You drive up to the main office located in the center of the complex and ask to see the manager. The accredited veterinarian had warned them that you would be coming and had asked them to not move any animals off the premises until after you had a chance to complete your investigation.

The manager takes you to the “hospital pens” to show you the cattle that had been pulled out of their regular pens because they did not seem to be doing well.

You are presented with 10 droopy looking cattle standing in one of the hospital pens. As you are digesting what the manager is sharing with you, one of the pen walkers comes up with another steer, saying, “Gee, here’s another one of those slobbering animals who aren’t putting the groceries away.... These Holstein steers just aren’t doing well, boss.”

The manager answers the questions you pose to her:

“These steers were sent to us by a local dairy about 1 ½ weeks ago to fatten up over a 120 day period. Within a week, my pen walkers began bringing in some of them who just didn’t look right and I sent to the hospital pens.

Then, they started bringing more in. I thought that they were probably stressed and that it might be a virus that they got and they would get over it if we gave them a less crowded pen and some drugs. Some of them have started walking funny, too. This just is not good for my business, so I finally called in Dr. I.M. Outahere to take a quick look at them. He only looked at one or two and said he had to call in a Federal Veterinarian who would help me diagnose what was wrong. So, Doc, what’s wrong with these guys?”

You help the manager move the steers to a chute where you can take a closer look at them.

Examination of the 11 Holstein steers:

Your exam of the 11 Holstein steers demonstrated some raw, reddened, eroded areas of the mouth, including lips, gums and dental pad and around the nostrils. When you pulled the tongue out, some of the epithelium of the tongue stayed in your gloved hand as the animal pulled the tongue back into its mouth. You maintain composure, but with a heightened sense of urgency you glance down at the coronary bands and see eroded lesions there and what appears to be a vesicle in the interdigital area.

Part II Questions:

3. List your initial differential diagnoses. Include a short explanation for each of the differentials.
4. You now have more questions you want to ask the manager of the feedlot. What are these questions?

The feedlot owner has a number of maps and blueprints to share with you.

She shows you a layout of the feedlot and, as you had noticed while examining the Holstein steers, there were a number of hospital pens. In the past 1 ½ weeks, the manager mentions, there were cattle who were moved daily into those pens with a variety of short term illnesses. She assures you that they were only there 3-4 days each and were then sent back to the pen from where they had been originally removed. The actual location of these animals might be tough to pinpoint, but the manager felt she had a reasonable recollection of which ones they were.

The manager was proud to share with you that they were involved with a pilot environmental effort by the local community. This pilot project involved the use of a pen scraper. This pen scraper was maneuvered in and out of each of the hospital pens every other day to scrape up the manure. This helped prevent build up of manure piles and consequent drain-off of whatever might be in the manure into the community creek that ran right through the middle of the feedlot. This community creek continued beyond the feedlot down one of the sides of the 6000 cow dairy farm located down the road.

When asked about surrounding premises, the feedlot manager recalled a swine operation just a stone's throw away from his north corner lot. In fact, now that she thought about it, that farmer told her that he was having some problems with those raucous critters. They were getting blisters on their nose from the caustic cleaning fluid he had to use to clean up spilt paint on the flooring where they were fed and he noticed some were also little lame.

You pull out your FAD/EDI resources to refresh your memory and get ready for more of the story...